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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Chung Liu

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08/10/2006

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EXAMINER

WU, QING YUAN

ART UNIT

PAPER NUMBER

2194

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/827,888	LIU ET AL.	
	Examiner	Art Unit	
	Qing-Yuan Wu	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, *whichever* IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

DETAILED ACTION

1. Claims 29-53 are pending in the application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 29-30, 32-33, 35-39, 41-42, 44-47, 49-50 and 52-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kusano (U.S. Paten 5,796,397), in view of Song et al (hereafter Song) (U.S. Patent 6,061,711).

4. Song and Kusano were cited in the previous office action.

5. As to claim 29, Kusano teaches the invention substantially as claimed including a method of performing task switching in a portable processing device, the method comprising:

receiving an indication from a user of a desire to perform a task switch on the portable processing device [abstract; col. 2, lines 9-14];

displaying a task switching menu listing a plurality of programs installed on the portable processing device that are useful to execute based at least partly on a currently executing program [col. 2, lines 14-19, 53-55; col. 5, lines 33-35; Fig. 7];

receiving a selection from the user of one of the displayed useful ones of the plurality of programs installed on the portable processing device [col. 6, lines 47-55; Fig. 8].

6. Kusano does not specifically teach listing only ones of a plurality of programs installed on the portable processing device that are useful. However, Kusano disclosed input items that have no matching items in the new application could be re-used and data obtained by the switched application mode is applicable in a new application mode [col. 10, lines 24-27; col. 4, lines 29-34]. It would have been obvious to one of an ordinary skill in the art at the time the invention was made, to have modified the teaching of Kusano to list only ones of a plurality of programs installed on the portable processing device that are useful to create a more efficient menu that avoid fruitless attempts that would yield non-matching items as implied by Kusano (i.e. not listing a clock, a calculator, etc. as displayed in Fig. 3 in the switch to application type of Fig. 7).

7. Furthermore, Kusano does not specifically teach context switching as recited. However, Song teaches storing a program state of a first currently executing program into a first context packet [Song, abstract; col. 2, lines 32-34], suspending execution of the first currently executing program [Song, abstract, lines 1-4, 7-11], and executing the selected one of a plurality of programs [Song, abstract, lines 3-4; col. 10, lines 60-61; col. 13, lines 35-50; 624, Fig. 6].

8. It would have been obvious to one of an ordinary skill in the art at the time the invention was made, to have combined the teaching of Kusano with the teaching of Song, because the

teaching of Song enhances the task switching capability of Kusano by providing the ability to switch between different programs and to return to the point where the user left off in the currently activated program [Song, abstract].

9. As to claim 30, Kusano as modified teaches the invention substantially as claimed including wherein the task switching menu is a pull-down menu [Fig. 7; col. 3, lines 35-36; col. 5, line 34].

10. As to claim 32, Kusano as modified teaches the invention substantially as claimed including restoring a stored program state of the selected one of the displayed useful ones of the plurality of programs installed on the portable processing device from a second context packet before executing the selected one of the displayed useful ones of the plurality of programs installed on the portable processing device [Song, col. 13, line 40 to col. 14, line 7].

11. As to claim 33, this claim is rejected for the same reason as claims 29 and 32 above.

12. As to claim 35, this claim is rejected for the same reason as claim 29 above.

13. As to claims 36-37, Kusano as modified does not specifically teach providing a context packet control panel to permit the user to set at least one parameter that affects context packets, and to manage an amount of memory used by the context packets. However, Song disclosed that

an application programmer could choose an appropriate point at a location in the executing program that requires preserving a minimal portion of the processor information across a context switch [Song, abstract, lines 20-30; col. 2, lines 16-21]. It would have been obvious to one of an ordinary skill in the art at the time the invention was made, to have recognized that the size of the context packets can vary based on a parameter chosen by the user as being considered by Kusano as modified.

14. As to claim 38, this claim is rejected for the same reason as claim 29 above. In addition, Kusano as modified teach the invention substantially as claimed including a portable processing device comprising:

at least on processor [5, Fig. 1; 13, Fig. 2];

a display device [4, Fig. 1; 11, 16, Fig. 2];

an input device [1, Fig. 1; 15, 16, Fig. 2];

a memory [1, 3, 6, Fig. 1; 12, 14, Fig. 2]; and

a bus connecting the at least on processor, the display device, the input device, and the memory [col. 4, lines 7-48; Figs. 1-2].

15. As to claims 39, 41-42 and 44-45, these claims are rejected for the same reason as claims 30, 32-33 and 36-37 above.

16. As to claims 46-47, 49-50 and 52-53, these claims are rejected for the same reason as claims 29-30, 32-33 and 36-37 above.

17. Claims 31, 40 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kusano and Song as applied to claims 29, 38 and 46 above, in view of Bodin et al (hereafter Bodin) (U.S. Patent 5,675,762).

18. Bodin was cited in the previous office action.

19. As to claim 31, Kusano and Song do not specifically teach releasing temporary memory used by the first currently executing program. However, Bodin teach the releasing of memory used by a currently running program when the currently running program is switch to the background [Bodin, col. 6, lines 44-47; col. 2, lines 49-52; 420, Fig. 5]. It would have been obvious to one of an ordinary skill in the art at the time the invention was made, to have combined the teaching of Kusano, Song and Bodin because Bodin's method of releasing memory of currently running program would improve the transparency and throughput of Kusano and Song's system by allowing re-use of memory once the context switching is performed.

20. As to claims 40 and 48, these claims are rejected for the same reason as claim 31 above.

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21. Claims 34, 43 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kusano and Song as applied to claims 29, 38 and 46 above, in view of Applicant Admitted Prior Art (hereafter AAPA).

22. As to claim 34, Kusano and Song do not specifically teach executing a non-multitasking operating system on the portable processing device. However, AAPA disclosed that palmtop or telephone applications lack a multitasking operating system [AAPA, pg. 4, lines 14-16]. It would have been obvious to one of an ordinary skill in the art at the time the invention was made, to have combined the teaching of Kusano, Song and AAPA because the teaching of Kusano and Song would improve the teaching of AAPA by providing an efficient context saving mechanism that minimized the utilization of limited resources [Song, abstract; AAPA, pg. 3, lines 17-18; pg. 8, line 4].

23. As to claims 43 and 51, these claims are rejected for the same reason as claim 34 above.

Response to Arguments

24. Applicant's arguments filed 5/26/06 have been fully considered but they are not persuasive.

25. In the remarks, Applicant argued in substance that:

- a. The Examiner is using hindsight to work backward to provide a suggestion for the feature of "listing only ones of a plurality of programs installed on the portable processing device that are useful."

26. Examiner respectfully traversed Applicant's remarks:

27. As to point (a), In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In addition, the examiner modified the mapping of claim 29 to further clarify the teaching of Kusano.

28. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR

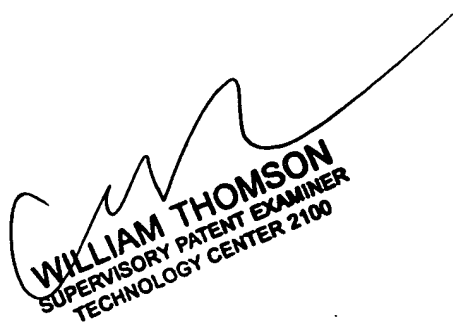
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1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qing-Yuan Wu whose telephone number is (571) 272-3776. The examiner can normally be reached on 8:30am-6:00pm Monday-Thursday and alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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